PATENT COOPERATION TREATY

PCT

TRANSLATION INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P803330/WO/1	FOR FURTHER ACTION	See Form PCT/IPEA/416					
International application No.	International filing date (day/month/year)	Priority date (day/month/year)					
PCT/DE2004/001872	24.08.2004	22.09.2003					
International Patent Classification (IPC) or nati-	onal classification and IPC						
B22F7/06 B22F5/04 B22	2F3/10						
Applicant							
MTU AERO ENGINES GMB	ł						
This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.							
2. This REPORT consists of a total of	4 sheets, inc	luding this cover sheet.					
3. This report is also accompanied by Al	NNEXES, comprising:						
a. (sent to the applicant and	to the International Bureau) a total of	sheets, as follows:					
		been amended and are the basis for this report and/or					
sheets containing red Instructions).	etifications authorized by this Authority (se	ee Rule 70.16 and Section 607 of the Administrative					
sheets which superso	ede earlier sheets, but which this Authorit	y considers contain an amendment that goes beyond					
the disclosure in the Box.	international application as filed, as indi	cated in item 4 of Box No. I and the Supplemental					
b. (sent to the International i	Bureau only) a total of (indicate type and n	number of electronic carrier(s))					
	surreum one, y a total of (material type and it	• • • • • • • • • • • • • • • • • • • •					
related thereto, in computer	readable form only, as indicated in the S	, containing a sequence listing and/or tables upplemental Box Relating to Sequence Listing (see					
Section 802 of the Administ							
4. This report contains indications relation	ng to the following items:						
Box No. I Basis of the	report						
Box No. II Priority							
Box No. III Non-establi:	shment of opinion with regard to novelty, i	nventive step and industrial applicability					
Box No. IV Lack of unit	y of invention						
BON 1.0. 1							
Box No. VII Certain defe	Box No. VII Certain defects in the international application						
Box No. VIII Certain obse							
Date of submission of the demand	Date of completion	of this report					
Date of Submission of the demand	Date of completion	or this report					
Name and mailing address of the IPEA/EP	Authorized officer						
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Facsimile No.	Telephone No.						

International application No.

PCT/DE2004/001872

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

Box	k No. I		Basis of the report					
1.	With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.							
			his report is based on translations from the original language into the following language hich is the language of a translation furnished for the purposes of:					
		i	nternational search (Rule 12.3 and 23.1(b))					
		Ц р	publication of the international application (Rule 12.4)				
		i i	nternational preliminary examination (Rule 55.2 and/	or 55.3)				
2.	rece	With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):						
		the inte	ernational application as originally filed/furnished					
	\boxtimes	the des	scription:					
		pages	1-9		as originally filed/furnished			
		pages*						
		pages*		received by this Authority on				
	\boxtimes	the clai						
	<u> </u>				an ani ainalla. Glad/Gamaiaka d			
		nos.			as originally filed/furnished			
		nos.*	1.5		23.07.2005 with letter			
		nos.*		received by this Authority on				
		nos.*		received by this Authority on				
	M	the dra	wings:					
		sheets	1/2-2/2		as originally filed/furnished			
		sheets*		received by this Authority on				
		sheets*		received by this Authority on				
		a seque	ence listing and/or any related table(s) – see Supplem	ental Box Relating to Sequence L	isting.			
3.		The an	nendments have resulted in the cancellation of:					
		t	he description, pages					
		t	he claims, nos.					
			the drawings, sheets/figs					
			he sequence listing (specify):					
4.	\Box		eport has been established as if (some of) the amend					
	Ш		ave been considered to go beyond the disclosure as fil					
		t	he description, pages					
		L t	he claims, nos.					
		<u> </u>	he drawings, sheets/figs					
		t	he sequence listing (specify):					
		Па	iny table(s) related to sequence listing (specify):					
*	If ite	m 4 app	lies, some or all of those sheets may be marked "sup	erseded."				

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/DE2004/001872

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement					
1.	Statement				
	Novelty (N)	Claims 1-5	YES		
		Claims	NO		
	Inventive step (IS)	Claims 1-5	YES		
		Claims	_ NO		
	Industrial applicabil	ility (IA) Claims 1-5	YES		
		Claims			
2.	Citations and explanati	ions (Rule 70.7)			
	2. Citations and explanations (Rule 70.7) 1. This report makes reference to the following				
		document:			
		D3: US 4 813 823 A			
	2.	D3 discloses a method for producing			
		components (drilling tools) by metallurgical			
		injection molding, wherein:			
		 two molded bodies are produced from powder 			
		and binding agent mixtures (column 5, lines			
		13-17 and $34-36),$			
		 each molded body is subsequently 			
		compressed or shrunken by sintering to form a			
		component having desired geometric			
		characteristics (column 5, lines $41-45$),			
		 each molded body is subject to a debinding 			
		process by heating to sintering temperature,			
		- in order to produce the component, two			
		molded bodies are joined to each other during			
		sintering through a diffusion process (column			
		5, line 45) in that the surfaces of the			
		sections of the molded bodies to be joined are			
		brought into contact during sintering (column			
		5, line 3,3), pressure being applied during			

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

sintering to the molded bodies to be joined (column 5, lines 37-40; column 6, lines 4-20).

Therefore, the subject matter of claim 1 differs from D3 in that claim 1 relates to a powder metallurgical method for producing components of a gas turbine. Furthermore, D3 explicitly does not disclose any debinding process, but a certain degree of debinding takes place necessarily in the course of heating to sintering temperature.

Therefore, the subject matter of claim 1 is novel (PCT Article 33(2)).

3. Neither D3 nor any of the other documents cited in the search report contains anything that would prompt a person skilled in the art to use the method known from D3 in the production of gas turbine components, since drilling tools are made of materials not normally found in gas turbines.

Consequently, the subject matter of claim 1 involves an inventive step (PCT Article 33(3)).

4. Claims 2-5 are are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.